In the Claims

1. (Currently amended) A high-mannose oligosaccharide cluster that mimics ~~an~~ a carbohydrate epitope on gp120 comprising four high-mannose oligosaccharides positioned on a cyclic core scaffolding framework, wherein the cyclic core scaffolding framework comprises monosaccharides, or cyclic organic compounds, wherein the four high-mannose oligosaccharides are Man_9, and wherein the positioning of high-mannose oligosaccharides on the cyclic core scaffolding framework mimics the carbohydrate epitope on gp120 having affinity for 2G12 antibodies.

2. (Cancelled)

3. (Original) The high-mannose oligosaccharide cluster according to claim 1, further comprising an immunogenic protein conjugated to the high-mannose oligosaccharide cluster thereby producing a high-mannose oligosaccharide/protein cluster.

4.-5. (Cancelled)

6. (Currently amended) The high-mannose oligosaccharide cluster of claim 3 ~~5~~, wherein the immunogenic protein is selected from the group consisting of keyhole limpet hemocyanin, tetanus toxoid, diphtheria toxoid, bovine serum albumin, ovalbumin, thyroglobulin, myoglobin, cholera toxin β-subunit, immunoglobulin and/or tuberculosis purified protein derivative.

7.-8. (Cancelled)

9. (Original) The high-mannose oligosaccharide cluster of claim 3 comprising four Man_9 covalently attached to a galactose scaffolding framework, wherein the immunogenic protein comprises keyhole limpet hemocyanin.

10. (Currently amended) A pharmaceutical composition comprising the high-mannose oligosaccharide cluster of claim 1 ~~3~~.

11.-14. (Cancelled)

15. (Withdrawn and currently amended) A method for generating a high-mannose oligosaccharide cluster, the method comprising:

covalently attaching four high-mannose oligosaccharide chain to a scaffold molecule, wherein the scaffolding framework comprises monosaccharides, or cyclic organic compounds, wherein the four high-mannose oligosaccharides are Man_9, and wherein the positioning of high-mannose oligosaccharides on the cyclic core scaffolding framework mimics ~~the~~ a carbohydrate epitope on gp120 having affinity for 2G12 antibodies.

16. (Withdrawn) The method according to claim 15, wherein the high-mannose oligosaccharide chain is extracted from the digestion of soybean agglutinin or produced by chemical synthesis.

17.-18. (Cancelled)

19. (Withdrawn) The method of claim 15, further comprising conjugating an immunogenic protein to the high-mannose oligosaccharide cluster.

20. (Withdrawn and currently amended) A method of inducing production of HIV neutralizing antibodies that exhibit affinity for a conserved cluster of oligomannose sugars on gp120, the method comprising:

administering to an animal the high-mannose oligosaccharide according to claim ~~1~~ 3 in an amount sufficient to induce production of antisera specific for the high-mannose oligosaccharide; and

collecting the antisera.

21.-29. (Cancelled)

30. (Withdrawn) A method for detecting candidate compounds that potentially interact with a conserved cluster of oligomannose sugars on gp120, the process comprising:

contacting the candidate compound with the high-mannose oligosaccharide cluster according to claim 1; and

determining the binding affinity of the candidate compound for high-mannose oligosaccharide cluster.

31.-38. (Cancelled)